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APPLICATION NO.	FIL	ING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	ATTORNEY DOCKET NO. CONFIRMATION NO.	
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	(U-				
	09/993,339	EYER ET AL.					
Office Action Summary	Examiner	Art Unit					
	Salman Ahmed	2666					
The MAILING DATE of this communication app		orrespondence add	ress				
Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 6(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this con D (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 11/14	<u> 1/2001</u> .						
2a) This action is <b>FINAL</b> . 2b) ∑ This	action is non-final.						
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4) Claim(s) <u>1-42</u> is/are pending in the application.							
4a) Of the above claim(s) is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-7,10-25 and 28-42</u> is/are rejected.							
7) Claim(s) 8,9,26 and 27 is/are objected to.							
8) Claim(s) are subject to restriction and/or	election requirement.						
Application Papers							
9) The specification is objected to by the Examiner	·.						
10)⊠ The drawing(s) filed on <u>11/14/2001</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:							
1. Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No							
3. Copies of the certified copies of the priority documents have been received in this National Stage							
application from the International Bureau (PCT Rule 17.2(a)).							
* See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)  1) Notice of References Cited (PTO-892)	Λ. C. 1242-224 - Δ. 11	(DTO 442)					
2) Notice of Preferences Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Ll Interview Summary Paper No(s)/Mail Da						
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) 🔲 Notice of Informal P		152)				
Paper No(s)/Mail Date	6)						

Application/Control Number: 09/993,339

Art Unit: 2666

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, 4, 5, 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaziri et al. (US PAT 6377570), hereinafter referred to as Vaziri.

In regards to claims 1, 2, 3, 4, 5 and 7 a method of data sharing and linkage between internet Protocol (IP) telephony Internet-accessible (as in claim 3) devices (figure 7c, element 100a, 100b, ISB), comprising: a first user of a first Internet-accessible device (figure 7c, element 100a, ISB) initiating a data transfer over a first communications (as in claim 5) link (column 4 lines 22-23, PSTN telephone call) between the first internet-accessible device, coupled to a first telephony (as in claim 4) device (figure 7c, element 211a) and usable by the first user, and a second Internet-accessible device (figure 7c, element 100b, ISB), coupled to a second telephony device (figure 7c, element 212b) and usable by a second user; establishing a second communications link (column 4 line 24, secondary network) between a first transmit/receive device (figure 7c, element 100a, ISB) of the first telephony device and a second transmit/receive device (figure 7c, element 100b, ISB) of the second telephony device; and exchanging a plurality of data packets between the first and

second internet-accessible devices via the second communications link in anticipated by the steps of establishing a secondary network or Internet connection (as in claim 7) via the ISB, the user first dials (as in claim 2) the PSTN telephone number of the intended call recipient. Once the called telephone is answered, which is a billable PSTN telephone call of short duration, both parties initiate (as in claim 2), via a simple keystroke, the switch to the secondary network. The two ISB's disconnect the PSTN call, and each initiates its own call to the other via the secondary network. The secondary network is the Internet (see column 4 lines 19-27).

In regards to claim 6, Vaziri anticipates the first communications link and the second communications link are the same (column 3 line 66, telephone line).

In regards to claim 10, Vaziri anticipates a format and a content of the plurality of data packets are defined by one or more applications running at one or more of the first and second internet-accessible devices (column 1 lines 35-40, specialized software programs, as well as an account with an online service or Internet service provider (ISP) for connection to the Internet via SLIP (the serial-line Internet protocol) or PPP (the point-to-point protocol)).

In regards to claim 11, Vaziri anticipates communicating a message that the exchange of the plurality of data packets is in progress to the first and second users on the first and second Internet-accessible devices (column 11 lines 13-17, three of the LEDs may be used to indicate whether the power is on or off, the status of an Internet call attempt and whether any messages are waiting. The fourth can be used in various ways).

3. Claims 34, 35, 36, 37, 38, 39, 40, 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Gerszberg et al. (US PAT 6452923), hereinafter referred to as Gerszberg.

In regards to claim 34, 35, 36, 37 and 38 Gerszberg anticipates a system (figures 1a and 1b) for the initiation, establishment and maintenance of a data link (link 70, 68 and 74 connecting elements 10-1 and element 10-2 in figure 1B) between a plurality of Internet-accessible (as in claims 35 and 37) devices (figure 1B, residential gateway 22-2 and an integrated residential gateway 22-1), comprising: a plurality of telephony (as in claim 36) devices (figure 1B, IP Telephony in element 10-1 and 10-2) suitable for voice grade communications (as in claim 37); a plurality of internet-accessible devices (figure 1B, residential gateway 22-2 and an integrated residential gateway 22-1) each (figure 1a, element 22) having a first interface (figure 1a, interfaces connecting element 22 to element 15) to the plurality of telephony devices (figure 1a, elements 15) and a second interface (figure 1a, interface connecting element 22 to 34) to a corresponding plurality of transmission (as in claim 38) media (column 5 lines 24-27, according to FIG. 1A, an intelligent services director (ISD) 22 may be coupled to a telephone central office 34 via a twisted-pair wire, hybrid fiber interconnection, wireless and/or other customer connection 30); a first internet-accessible device (figure 1a, element 22) of the plurality of Internet-accessible devices (figure 1B, residential gateway 22-2 and an integrated residential gateway 22-1) having the first interface (figure 1a, interfaces connecting

element 22 to element 15) to a first telephony device (figure 1a, any element 15) of the plurality of telephony devices (figure 1a, elements 15) and the second interface (figure 1a, interface connecting element 22 to 34) to the plurality of transmission media (column 5 lines 24-27, according to FIG. 1A, an intelligent services director (ISD) 22 may be coupled to a telephone central office 34 via a twisted-pair wire, hybrid fiber interconnection, wireless and/or other customer connection 30); and a plurality of transmission paths (column 5 lines 24-27, according to FIG. 1A, an intelligent services director (ISD) 22 may be coupled to a telephone central office 34 via a twisted-pair wire, hybrid fiber interconnection, wireless and/or other customer connection 30) linking the plurality of Internet-accessible devices (figure 1B, residential gateway 22-2 and an integrated residential gateway 22-1) to the plurality of telephony devices (figure 1B, IP Telephony in element 10-1 and 10-2).

In regards to claims 39 and 40 Gerszberg anticipates a transmission path data link (figure 1B link 70) of the plurality of transmission paths (link 70, 68 and 74 connecting elements 10-1 and element 10-2 in figure 1B) includes a first cable headend (figure 1b, element 68) coupled to a first input/output terminal of the first set-top box (figure 1b, residential gateway, 22-2), and a second cable headend (figure 1b, element 68) coupled to a plurality of input/output terminals of the plurality of set-top boxes (figure 1B, residential gateway 22-2 and an integrated residential gateway 22-1).

In regards to claim 41, Gerszberg anticipates a transmission path of the plurality of transmission paths (link 70, 68 and 74 connecting elements 10-1 and element 10-2 in figure 1B) includes an Internet (figure 1a, element 58) coupled to a first input/output

terminal of the first cable headend (figure 1b, element 68) and coupled to a first input/output terminal of the second cable headend (figure 1b, element 68).

In regards to claim 42, Gerszberg anticipates a transmission path of the plurality of transmission paths (link 70, 68 and 74 connecting elements 10-1 and element 10-2 in figure 1B) includes PSTN (figure 1a, element 44) coupled to a first input/output terminal of the /first cable headend (figure 1b, element 68) and coupled to a first input/output terminal of the second cable headend (figure 1b, element 68).

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gerszberg et al. (US PAT 6452923), hereinafter referred to as Gerszberg in view of Corrigan et al. (US PAT 5818825), hereinafter referred to as Corrigan.

Gerszberg teaches a method of data sharing and linkage between internet Protocol (IP) telephony Internet-accessible devices (figure 1B, residential gateway 22-2 or an integrated residential gateway 22-1), comprising: a first user (figure 1B, IP Telephony in element 10-1) of a first Internet-accessible device (figure 1B, residential gateway 22-2) initiating a data transfer over a first communications link (link 70, 68 and 74 connecting elements 10-1 and element 10-2 in figure 1B) between the first internet-accessible device (figure 1B, residential gateway 22-2), coupled to a first telephony device (figure 1B, IP Telephony in element 10-1) and usable by the first user, and a second Internet-accessible device (figure 1B, an integrated residential gateway 22-1), coupled to a second telephony device (figure 1B, IP Telephony in element 10-2) and usable by a second user is anticipated by the link 70, 68 and 74 connecting elements 10-1 and element 10-2 in figure 1B.

Gerszberg does not explicitly teach establishing a second communications link and exchanging a plurality of data packets via the second communications link.

Corrigan teaches (abstract) a method and apparatus in a communications system (100) for providing communications units (134) access to the communications system (100). The communications system (100) includes a cable distribution network

(106) with a base communications unit (102) and a number of downstream communications units (134) all connected to the cable distribution network (106). A plurality of channels are used to transmit data between the base communications unit (102) and the downstream communications units (134). A first set of channels are used primarily for access to the communications system (100) and a second set of channels are used for transmitting data within the communications system (100) after access to the communications system (100) has been gained. The base communications unit (102) sends a first type of data transmission including an identification of access channels used for requesting access to the communications system (100). The base communications unit (102) assigns channels within the second set of channels response to receiving a request for access to the communications system (100) on the first set of channels.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gerszberg's teaching by incorporating the channel/link selection scheme as taught by Corrigan. The motivation is that (as suggested by Corrigan, column 7 lines 12-20) as shown in the figure time slot 1 in frame 404 includes a synchronization channel (SYC) 414, a control channel (CC) 416, a slow channel (SC) 418, a fast channel (FC) channel 420, and an error control channel (EC) 422. Sync channel 414 is a synchronization channel used for frame synchronization. CC 416 is used to indicate word errors, signaling, and power control. SC 418 is used for signaling, and FC 420 is used for both user data and signaling. EC 422 is used for error detection. Such channel usage makes more efficient usage of the transmission media.

4. Claims 12, 13, 14, 19, 20, 21, 24, 25, 28, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrigan in view of Farris et at (US PAT 5881131), hereinafter referred to as Farris.

In regards to claims 12, 19, 20, 21, 24 and 25 Corrigan teaches a method for establishing a data link (figure 1, links 122 and 120) between users of set-top boxes (figure 1, elements 134, cable access units) and sharing data through the data link, comprising: establishing contact (column 9 lines 44-46, an initial access request, such as initial access request 508 in FIG. 5E, is sent by the CAU to the CCU on the RAC to initiate a system access request at the CCU); initiating a data transfer (column 10 lines 16-28, in response to requests from the CAU, the CCU sends a number of responses including an access confirm response, which is sent in response to a system access request from a CAU. FIG. 5H shows an access confirm response 514 that is sent from the CCU to the CAU on the SRC to assign a TCH to the CAU. Access confirm response 514 includes channel assignment information, such as the time slot and bandwidth associated with an assigned TCH. The time slot field tells the CAU which time slot to use while the bandwidth field tells the CAU which frames within a superframe to use for transmitting bursts, such as superframe 400 in FIG. 4A.); exchanging identification information (column 8 lines 36-40, Messages between communications units, such as CCUs and CAUs, contain access request numbers (ARNs) to identify to which CAU a particular message is directed); using the

identification information to establish a data link and exchanging a plurality of data packets between the plurality of set-top boxes over the data link (column 8 lines 40-47. ARNs are unique to each CAU within a serving area. ARNs are employed to uniquely identify messages, such as requests and responses. All bursts or requests (as in claim 25) from a CAU include an ARN to identify the origination of the burst. Similarly, when responses (as in claim 25) are sent back to a CAU, the CAU can identify the response as being directed towards the CAU based on the ARN contained within the response from the CCU); and maintaining current identification information between the plurality of set-top boxes to allow the data link to be continuously accessible by the plurality of set-top boxes (column 11, lines 66-67, In TCH Assigned state A4, the CAU waits for a normal release of the channel or a dead link indication). Corrigan teaches (column 3 lines 223-25) the communication can happen between the users of set-top boxes (communications system 100 is a cable telephony communications system that provides telephone (as in claim 24) services along with cable television services on an HFC television infrastructure).

In regards to claims 12, 19, 20, 21, 24 and 25 Corrigan does not explicitly teach the communication takes place through first, second, third and fourth transmission media. In regards to claims 19-21, Corrigan does not teach the third transmission media is the second transmission media; the second and the third transmission medium are the first transmission media; the second, third and fourth transmission medium are the first transmission media.

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In regards to claims 12, 19, 20, 21, 24 and 25 Farris teaches (column 2 lines 16-14) from its inception, the network was designed to be a decentralized, self-maintaining series of redundant links (transmission media) between computers and computer networks, capable of rapidly transmitting communications without direct human involvement or control, and with the automatic ability to re-route communications if one or more individual links were damaged or otherwise unavailable. Messages between computers on the Internet do not necessarily travel entirely along the same path. The Internet uses "packet switching" communication protocols that allow individual messages to be subdivided into smaller "packets" that are then sent independently to the destination, and are then automatically reassembled by the receiving computer (see column 2 lines 52-57).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Corrigan's teaching by incorporating the teachings of multiple links (transmission media) as taught by Farris. The motivation is that (as suggested by Farris, column 2 lines 23-26) redundant system of linked computers was designed to allow vital research and communications to continue even if portions of the network were damaged, say, in a war.

In regards to claims 13 and 14 Corrigan teaches a plurality of telephony devices (column 5 lines 30-31, a phone, a standard computer modem) which are telephones coupled to the set-top boxes ((column 4 lines 16-20, The CAU manages the uplink and downlink communications paths and transports cable television channels to the

subscriber's television and "A plain old telephone" (POTS) at the subscriber's home also plugs into the CAU).

In regards to claim 28, Corrigan teaches an amount and a type of identification information exchanged varies depending upon a security policy defined for the users of the plurality of set-top boxes (Column 7 lines 46-55, a system information channel (SIC) and an alerting channel (AC) are time multiplexed onto the SBC. A CAU locates the SBC and listens to the SIC for information of general interest to all devices attached to a CAU. The SIC identifies general system identifiers and capabilities; security information used for authentication and encipherment; and location of carrier frequencies, SBCs, and SACs).

In regards to claims 29 and 30 Corrigan teaches the identification information exchanged includes acknowledgement information (column 8 lines 40-47, ARNs are unique to each CAU within a serving area. ARNs are employed to uniquely identify messages, such as requests and responses. All bursts or requests from a CAU include an ARN to identify the origination of the burst. Similarly, when responses are sent back to a CAU, the CAU can identify the response as being directed towards the CAU based on the ARN contained within the response from the CCU); and establishing the data link includes exchanging acknowledgement information (column 10 lines 16-28, in response to requests from the CAU, the CCU sends a number of responses including an access confirm response, which is sent in response to a system access request from a CAU) between the plurality of set-top boxes.

5. Claims 15, 16, 17, 18, 22, 23, 31, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrigan in view of Farris, in view of Vaziri.

In regards to claims 15, 16, 17, 18, 22, 23, 31, 32 and 33 Corrigan in view of Farris teaches of channel utilization scheme using set-top boxes as described in the rejection of claim 12 above.

In regards to claims 15, 16 Corrigan in view of Farris does not explicitly teach first telephony device of the plurality of telephony devices (telephone) coupled to a first settop box is able to communicate with the plurality of telephony devices coupled to the plurality of set-top boxes using a Public Switched Telephone Network contained within the first transmission media. In regards to claims 17 and 18 Corrigan in view of Farris does not explicitly teach a first telephony device (telephone) coupled to a first set-top box is operable to communicate with the plurality of telephony devices coupled to the plurality of set-top boxes using the Internet and the second transmission media is the internet (as in claim 22) or PSTN (as in claim 23). In regards to claim 31, Corrigan in view of Farris does not explicitly teach he data transmitted after establishing the data link includes a plurality of voice packets, thereby bypassing a public switched telephone network. In regards to claim 32, Corrigan in view of Farris does not explicitly teach the data transmitted after the establishment of the data link over the data link includes one or more of Internet Protocol addresses, Media Access Control (MAC) addresses, e-mail addresses, mailing addresses, television viewing preferences, television viewing history, photographic archives, personal or family activity schedules,

address books, websites, audio files, video files, and travel itineraries. In regards to claim 33, Corrigan in view of Farris do not explicitly teach each set-top box of the plurality of set-top boxes transmits notification of a change in its data link availability to the plurality of set-top boxes to enable the plurality of set-top boxes to access the data link between said plurality of set-top boxes

In regards to claims 15-18, 22, 31 and 32 Vaziri teaches establishing a secondary network or Internet connection via the ISB, the user first dials the PSTN telephone number of the intended call recipient. Once the called telephone is answered, which is a billable PSTN telephone call of short duration, both parties initiate. via a simple keystroke, the switch to the secondary network. The two ISB's disconnect the PSTN call, and each initiates its own call to the other via the secondary network. The secondary network is the Internet (see column 4 lines 19-27). In regards to claim 23, Vaziri teaches an ISB may be incorporated into a telephone or be a standalone adjunct device connected between the telephone and the telephone line. Additionally, ISB's may be associated with facsimile machines, wireless telephones and multiple line telephone systems, such as key telephone and Private Branch Exchange (PBX) systems, and operate to provide multiple users of such Customer Provided Equipment (CPE) the ability to designate the secondary network handling of their toll calls. According to one embodiment, the ISB will set up a secondary network or Internet telephone call after the PSTN connection has been established and in response to a command to do so by its user(s) as described above. In an alternative embodiment, the ISB may be configured to establish a connection over a secondary network

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automatically unless commanded not to prior to the call being placed. In either case the called telephone can answer or simply ring before the telephone call can be switched to a secondary network or the Internet (see column 3 lines 65-67, column 4 lines 1-10). In regards to claims 31 and 32 Vaziri teaches sound originating on one end is digitized via the microphone and sound card, compressed, and transmitted to the other end as packets over the Internet using TCP/IP, where the packets are decompressed and converted back into sound via the sound card and speakers (see column 2 lines 6-10). In regards to claim 33, Vaziri teaches each set-top box of the plurality of set-top boxes transmits notification of a change in its data link availability to the plurality of set-top boxes to enable the plurality of set-top boxes to access the data link between said plurality of set-top boxes (column 11 lines 13-17, three of the LEDs may be used to indicate whether the power is on or off, the status of an Internet call attempt and whether any messages are waiting. The fourth can be used in various ways).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Corrigan in view of Farris teaching by incorporating the method of making internet telephony calls as taught by Vaziri. The motivation is that (as suggested by Vaziri, column 1 lines 30-33) internet telephony calls allows users with properly equipped personal computers to complete long distance telephone calls to one another over the Internet without incurring a toll charge.

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## Allowable Subject Matter

6. Claims 8, 9, 26, 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salman Ahmed whose telephone number is (571)272-8307. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Salman Ahmed Examiner Art Unit 2666

Tommer

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PRIMARY EXAMINER